



How to Identify New Commitments

National Environmental Performance Track Teleseminar March 10, 2005

Agenda

- Introduction/Overview – **Sara Ethier**
 - Ptrack Commitment Overview
 - 3M Participation
- Community Commitments – **Jeff Muffat**
 - Public Outreach Requirements
 - Organizations
- 3M-Specific Examples – **Jim Kotsmith**
 - Pollution Prevention Pays
 - 3M Renewal Ideas
- Conclusions – **Sara Ethier**



Introduction / Overview

Sara Ethier

3M Facts

Year End 2003

Sales

Worldwide \$18.2 billion
International
(58% of total)..... \$10.7 billion

Earnings

Net income – reported ... \$2.40 billion
Net income – excluding* \$2.46
billion
(* Excludes non-recurring items)

R&D Expenditures

For 2003 \$1.1 billion
Total last 5 years \$5.4 billion

Employees

Worldwide 66,740
United States 33,329

3M Environmental Results Worldwide*



Prevented 2.2 billion pounds of pollution since 1975 with 5,600 3P projects

Cut solvent air emissions 50% since 2000 (on top of a 93% reduction from 1990 – 2000)

Cut solid waste 11% since 2000 (on top of a 47% reduction from 1990 – 2000)

Improved energy efficiency 11% since 2000

Performance Commitment Renewals

- Four commitments for next three years
 - Environmental performance table (EPT)
 - Multi-media categories (i.e. air/water/waste)
 - Removed accidental releases
 - Added supply chain indicators, dust, vibration, and radiation
 - Commitments must be facility, not process specific
 - Must use units listed in EPT

Performance Commitment Renewals

- Three commitments for next three years if using a regional challenge commitment
 - Each region may establish commitment to address regional priorities
 - One category, two aspects (i.e. air emissions, VOC/NO_x)
 - If used, the commitment must be from Region where facility is located
 - Challenge commitments still being developed
 - Currently applies to Region 6 ozone non-attainment areas only

Categories and Aspects for Performance Commitment Consideration

- Negative Effects of activities or processes
 - Air emissions
 - Waste generation
 - Material use
- Use of Resources
 - Energy use
 - Water use
 - Material use

Categories and Aspects for Performance Commitment Consideration

- Preserve or Restore Resources
 - Land use
- Environmental Performance of Products
 - Suppliers environmental performance
 - Lifetime energy, water and waste disposal

Must Tie Future Performance Commitments to Significant Environmental Aspects and Targets as Identified in the EMS

Current 3M Ptrack Membership

- Guin, AL
- Brownwood, TX
- New Ulm, MN
- Irvine, CA
- Petaluma, CA
- Austin Research Blvd, TX
- Brookings, SD
- Nevada, MO
- Menomonie, WI
- Valley, NE
- Aberdeen, SD
- Alexandria, MN
- Monrovia Unitek, CA
- Decatur, AL

3M Ptrack Facilities



Basis for Goals at 3M Plants

- ISO 14001/EMS Aspects
- EHS Management Plans
- 3M's Environmental Goals (ET'05)

ET'05 Environmental Goals

- Reduce VOC emissions by 25% per pound of product (5% per year)
- Reduce TRI emissions by 50% per pound of product (US only) (10% per year)
- Reduce waste generated by 25% per pound product (5% per year)
- Reduce energy use by 20% per pound of product (4% per year)
- Develop 400 3P Projects (2 per facility)

3M's Existing Ptrack Commitments

14 Plants

- Volatile Organic Compounds (VOC) Emissions (9 locations)
- Energy Use (10 locations)
- Waste Reduction (19 commitments at 12 plants)
 - Solid waste
 - Hazardous waste
 - Sludge

3M's Existing Ptrack Commitments

Other

- Water use (4)
- Recycling (3)
- Product Performance (3)
- Accidental Release Reduction (1)
- Solvent use (1)
- Air Emissions of Specific Compounds (3)
- Material Use (1)
- Land Conservation (1)

3M Ptrack Progress 2001-2003

Aspect	Reduction (#)	Reduction (%)
VOC Emissions	1,315,136 lbs.	60%
Waste	5,281,830 lbs.	14%
Energy	324,853 MMBTU	16%
TRI	324,358 lbs.	55%

24 of 36 Performance Commitments have been met

Where can you find new ideas for performance commitments?

- Start with basic questions
 - Where do you have inefficiency (if older facility it's probably there)
 - What does the management team want to improve (ask what is the biggest manufacturing issue – is there an environmental component?)
 - Benchmark other companies or other plants within the same company and compare rate of energy, water, raw material use if possible
 - Look outside area of expertise and ask production, maintenance, sales etc. for any issues (product quality for example)



Community Commitments

Jeff Muffat

Public Outreach Requirements

- Requirement of all Performance Track facilities
- Types of Public Outreach
 - Website (EPA or plant)
 - Press Release (via paper or radio station)
 - Presentations (Chamber of Commerce, etc.)
 - Facility tours
 - Citizens advisory board
- Make Annual Performance Report available via website or posting in public location (city hall, library, etc.)

Meeting Employee and Community Needs

- Attracting and retaining a diverse and talented work force
- Supporting continuous learning and knowledge-sharing
- Investing in communities where we operate; providing jobs for local residents; and supporting education, the environment, social and economic development

Voluntary Programs

- Wildlife Habitat Council Certifications
- Clean Air Minnesota/Minnesota Environmental Initiative
- Energy Star Program
- Performance Track Participants Association
- National Pollution Prevention Roundtable

Community Outreach Through Voluntary Programs

- Highlighting programs on website
- Holding recognition events at facilities
- Publicizing results in newspapers, business journals and other local print media
- Working with local groups and advocates
- Encouraging employees to volunteer time
- Recognition through other programs
- Sponsor professional events at local and national level

Wildlife Habitat Council

- Plants get certified
- Use employee family members
- Use public participation, if interested
- Count as one aspect for Ptrack
- Sponsor photos in WHC calendar
- Offsite work can be certified
- Publicize in local media

Minnesota Environmental Initiative/ Clean Air Minnesota

- MEI is an educational group which fosters partnerships and a forum to address the region's environmental issues
- The Board is made up of NGOs, industry members and state agency Commissioners
- Clean Air Minnesota is a project of the MEI directed toward keeping the Twin Cities in attainment for ozone and particulates

Energy Star

- EPA/DOE voluntary program
- Provides information and resources to reduce energy costs
- Provides recognition
- Provides networking opportunities
- www.energystar.gov

Performance Track Participants Association

- Organization started February 21, 2001
- Modeled after the Voluntary Protection Program Participants Association (VPPPA)
- Comprised of Performance Track members
- Some objectives;
 - Provide facilities with recognition of environmental excellence
 - Foster sharing of information that improves environmental performance
 - Work on developing incentives for participation
- PTPA website – <http://www.ptpaonline.org>

National Pollution Prevention Roundtable

- An organization made of pollution professionals, mainly in regulatory or academic roles
- Many are working in communities or industries to prevent pollution
- Conference April 12 –14, 2005 in Chicago (several co-sponsors)
- Sub-teams working in topical areas
- Good opportunity to share ideas and come up with new ideas for your facility



3M - Specific Examples

Jim Kotsmith

3P Overview

- 3P Program originated at 3M in 1975
 - Eliminate pollution at the source
 - Save resources and money in the process
 - 1st year savings only
- Global results-to-date
 - Over 5,600 projects recognized
 - Over 2.2 billion pounds of pollution prevented
 - Nearly \$1 billion saved
- Internal idea-generating Program

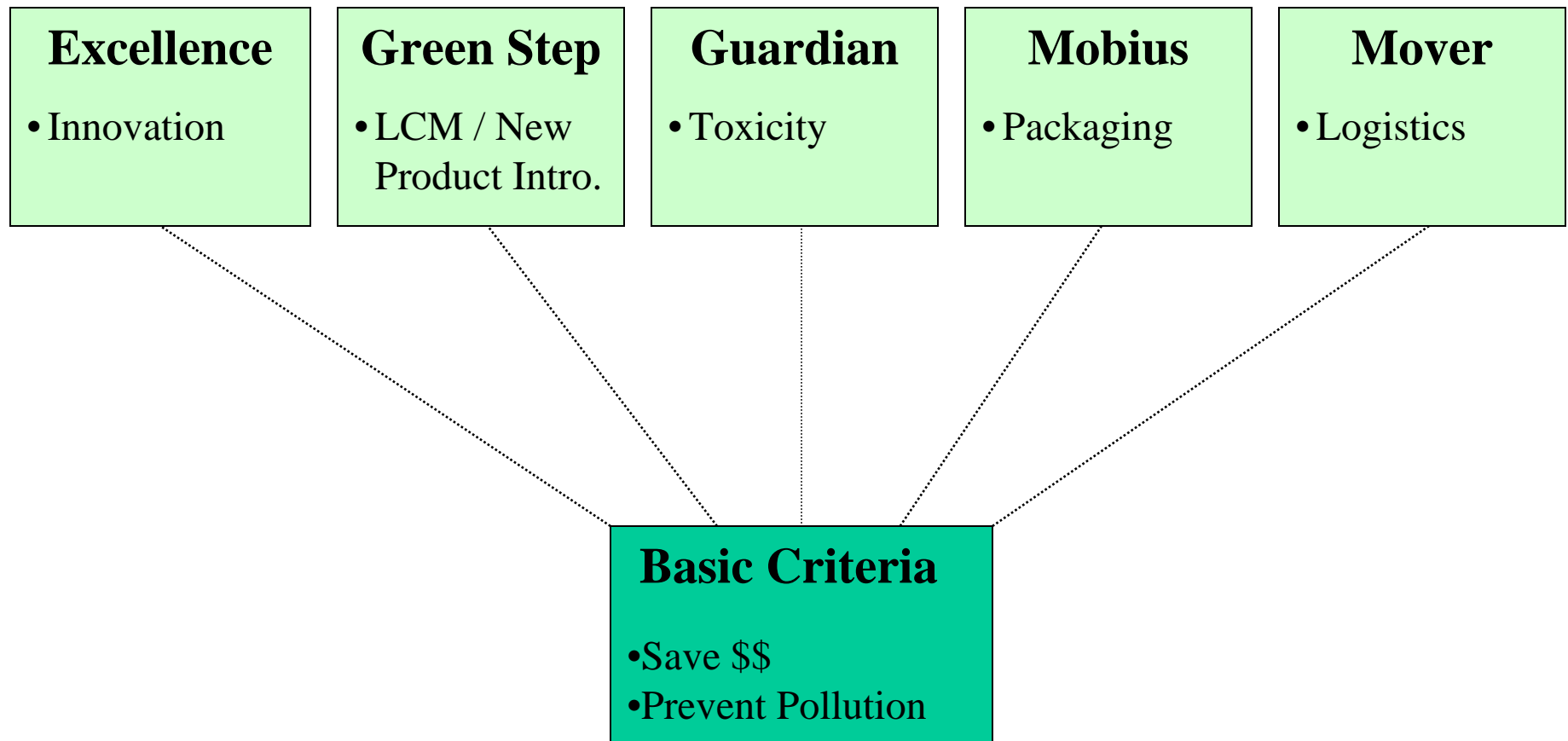
Pollution Prevention Methods

- Product reformulation
 - Water-based vs. solvent-based coating
- Process modification
 - Removal of liner exchange process
- Equipment redesign
 - Installation of energy efficient motors, heating, etc.
- Productive use of waste materials
 - Recycling scrap film back into the process

Measurement Criteria

- Basic criteria
 - Prevent pollution by reducing/eliminating a problem pollutant or energy consumption; AND
 - Provide a monetary benefit to 3M
- Special criteria
 - Excellence (innovation)
 - Green Step (LCM - new product/reformulation)
 - Guardian (toxics)
 - Mobius (packaging)
 - Mover (transportation)

Measurement Criteria



3P Excellence Criteria

- Utilize a unique or original design; **AND**
- Involve significant technical accomplishment.

Examples include:

- Original process design to reduce or eliminate waste, emissions, etc.
- New process to recycle waste back into final product.

3P Green Step Criteria

- Have an LCM review completed; **AND**
- Show reduction in emissions during manufacturing over a similar family of products; **OR**
- Show reduction of releases for the customer.

Examples include:

- Reduction in pounds of emission per unit of product.
- Working with customers to reduce waste from 3M products (liners, returns, etc.).

3P Guardian Criteria

- Reduce or eliminate toxic emissions during manufacturing; **OR** for the customer; **OR**
- Introduce a new product that has no toxic releases.

Examples include:

- Reformulate coating to reduce HAP or TRI chemical content.
- Substitute non-HAP or non-TRI chemicals.

3P Mobius Criteria

- Incorporate recyclable or reuse benefits of product packaging; **OR**
- Reduce the amount of packaging materials required for products.

Examples include:

- Exchange program with vendors/plants (returnable/reusable packaging containers).
- Reduce pounds of packaging per unit of product.

3P Mover Criteria

- Demonstrate improvement in goods distribution.

Examples include:

- Consolidation of products shipped to customers/ vendors and/or from suppliers.
- Reduce vehicle miles traveled per unit of product.

Where can you find ideas for future Performance Commitments

- Look at existing metrics
 - Product yield
 - Landfill volume, weight and costs
 - Hazardous waste volume, weight and costs
 - Sewer and water bills
 - Energy bills
 - Raw material use and trends
 - 3P projects
 - Six Sigma projects

Where can you find ideas for future Performance Commitments

- Look at facility, equipment and production
 - Product yield, equipment run time
 - Efficiency and age of motors, lighting and HVAC/air handling systems
 - Where water is used (pump seals, leaks)
 - Walk through facility on major holiday/shut down and see what is running
 - Is plant located in a geographical area where water, energy or other resource is constrained?



Conclusions

Sara Ethier

In Conclusion

- Gather ideas from people you don't normally ask
- Look at high cost, large volume or inefficient systems
- Bring existing metrics into analysis
- Use pollution prevention
- Extend an existing goal
- Look at new areas (energy, community involvement, product issues)
- Recommend participants join Performance Track Participants Association (www.ptpaonline.org)